

REMARKS

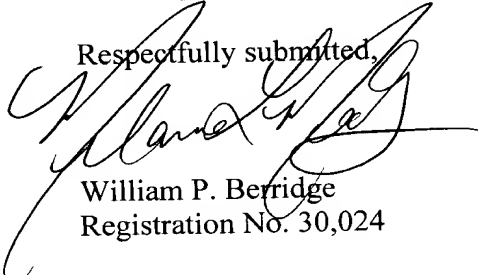
Claims 1-28 are pending. By this Preliminary Amendment, the sequence listing is replaced; claims 3-16 and 18-24 are amended; and claims 25-28 are added.

The attached Appendix includes marked-up copies of each rewritten claim (37 C.F.R. 1.121(c)(1)(ii)).

The attached paper copy and computer-readable copy of the Sequence Listing are submitted in compliance with 37 C.F.R. §§1.821-1.825. The contents of the paper copy and the computer-readable copy of the Sequence Listing are the same. No new matter is added. Support for the information provided in the Sequence Listing can be found in the original Sequence Listing.

Early and favorable consideration on the merits is respectfully requested.

Respectfully submitted,



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Attachments:

Appendix
Sequence Listing (paper and computer-readable copies)

Date: September 20, 2001

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APPENDIX

Changes to Specification:

The Sequence Listing is replaced.

Changes to Claims:

Claims 25-28 are added.

The following are marked-up versions of the amended claims:

3. (Amended) Bacterium according to claim 1 ~~or 2, characterized in that it~~
wherein said bacterium is deposited in the CNCM of the Institut Pasteur under the number I-2202.
4. (Amended) Antigen of a bacterium according to claim 1 ~~one of claims 1 to 3.~~
5. (Amended) Antigen according to claim 4, ~~characterized in that it wherein said~~
antigen is a protein selected from those with molecular weights of about 35, 50, 60, 100 and 200 kD determined in Figures 2 and 3 by polyacrylamide gel electrophoresis using the Western blotting technique.
6. (Amended) Specific antibody directed against ~~the a~~ bacterium *Tropheryma whippelii* responsible for Whipple's disease ~~or an antigen of the said bacterium according to one of claims 1 to 5.~~
7. (Amended) Antibody according to claim 6, ~~characterized in that wherein it is~~
a polyclonal antibody of animal origin, preferably a mouse immunoglobulin.
8. (Amended) Antibody according to claim 6, ~~characterized in that wherein it is~~
a monoclonal antibody.
9. (Amended) Antibody according to claim 8, ~~characterized in that wherein it is~~
a monoclonal antibody produced by a hybridoma deposited in the CNCM of the Institut Pasteur under the registration number I-2411.
10. (Amended) Antigen according to claim 5, ~~characterized in that it wherein said~~
antigen is a protein of 200 kD which reacts with an specific monoclonal antibody ~~according to claim 9~~ directed against a bacterium *Tropheryma whippelii* responsible for Whipple's disease ~~or an antigen of said bacterium, said antibody being produced by a hybridoma deposited in the CNCM of the Institut Pasteur under the registration number I-2411.~~
11. (Amended) ~~Use of a bacterium according to any one of claims 1 to 3 or an antigen according to claim 4, 5 or 10~~ Method for the *in vitro* diagnosis of diseases associated

with infections caused by the bacterium *Tropheryma whippelii*, comprising bringing serum or any other biological fluid of a patient into contact with the bacterium of claim 1.

12. (Amended) ~~Use of an antibody according to one of claims 6 to 9~~ Method for *in vitro* diagnosis of the disease associated with infections caused by *Tropheryma whippelii* bacteria, comprising bringing serum or any other biological fluid of a patient into contact with the antibody of claim 6.

13. (Amended) Method for the *in vitro* serological diagnosis of Whipple's disease, comprising the steps which consist essentially ~~in of~~ detecting an immunological reaction between an antibody ~~specific for the bacterium according to one of claims 6 to 9~~ and an antigen of ~~said a bacterium according to one of claims 4, 5 and 10~~ *Tropheryma whippelii* responsible for Whipple's disease.

14. (Amended) Method for the *in vitro* serological diagnosis of Whipple's disease, comprising the step which consists essentially ~~in of~~ detecting an immunological reaction between ~~an antibody specific for a human immunoglobulin which recognizes said bacterium according to one of claims 1 to 3~~ *Tropheryma whippelii* responsible for Whipple's disease and ~~a an antibody specific for said human immunoglobulin which recognizes said bacterium according to claims 1 to 5.~~

15. (Amended) Method of serological diagnosis according to claim 14 comprising the following steps:

- depositing a solution containing ~~the a bacterium as defined in claims 1 to 3~~ *Tropheryma whippelii* responsible for Whipple's disease, in or on a solid support;
- introducing the test serum or biological fluid into or onto said support;
- introducing a solution of a labeled antibody specific for a human immunoglobulin which recognizes said bacterium, into or onto the support;
- observing an incubation period;
- rinsing the solid support; and
- detecting said immunological reaction.

16. (Amended) Kit for the *in vitro* detection of Whipple's disease by the method of ~~one of claims 13 to 15~~, essentially comprising the following components:

- a solution containing ~~the a bacterium~~ *Tropheryma whippelii* responsible for Whipple's disease or an antigen ~~as defined in claims 1 to 5 and 10~~ of said bacterium; and/or

- a solution containing at least one specific antibody ~~according to one of claims 6 to 9~~ directed against a bacterium *Tropheryma whippelii* responsible for Whipple's disease or against an antigen of said bacterium; and/or
- a solution containing at least one antibody specific for a human immunoglobulin, which recognizes ~~said a bacterium according to claims 1 to 3~~ *Tropheryma whippelii* responsible for Whipple's disease.

18. (Amended) Fragment of the *rpoB* gene of the bacterium *Tropheryma whippelii* according to ~~one of claims 1 to 3, characterized in that it wherein~~ said fragment comprises the nucleotide sequence SEQ ID N°NO: 3.

19. (Amended) Oligonucleotide comprising a sequence specific for the *rpoB* gene of the bacterium *Tropheryma whippelii* according to ~~one of claims 1 to 3~~, said specific sequence comprising at least 12 consecutive nucleotide units included in the sequence SEQ ID N°NO: 3.

20. (Amended) Single-stranded oligonucleotide according to claim 19 selected from oligonucleotides having a sequence of at least 12 consecutive nucleotide units included in one of the sequences ~~to of~~ SEQ ID N°NOs: 4 and 5, and from the oligonucleotides complementary to these oligonucleotides.

21. (Amended) Oligonucleotide according to claim 19 ~~or 20, characterized in that wherein~~ it consists of the sequences SEQ ID N°NOs: 4 and 5.

22. (Amended) Probe for detecting *Tropheryma whippelii* bacteria in a biological sample, ~~characterized in that it wherein said probe~~ comprises a sequence according to claim 18 or an oligonucleotide according to one of claims 19 to 21.

23. (Amended) Process for determining the presence or absence of a *Tropheryma whippelii* bacterium in a sample which contains or may contain nucleic acids of at least one such bacterium, ~~characterized in that wherein~~ said sample is brought into contact with at least one probe according to claim 22 and the formation or absence of formation of a hybridization complex between said probe and the nucleic acid of the sample is then determined.

24. (Amended) Nucleotide primer which can be used for synthesizing the *rpoB* gene of *Tropheryma whippelii* in the presence of a polymerase, ~~characterized in that it wherein said primer~~ comprises an oligonucleotide according to claims 19 to 21, preferably an oligonucleotide comprising one of the sequences SEQ ID N° 4 and SEQ ID N° 5.